

What is claimed is:

1 1. A system for providing Web browser-based remote network
2 appliance configuration in a distributed computing environment, comprising:
3 one or more network appliances interconnected within a bounded network
4 domain defined by a common network address space; and
5 a configuration client comprising an applet executing within a Web
6 browser and configuring the network appliances, comprising:
7 a status module broadcasting a query message to the network
8 appliances and processing a response message containing network settings,
9 including a physical network address, received by the applet from at least one
10 such network appliance responsive to the query message; and
11 a configuration module generating and sending a configuration
12 packet using the physical network address for each at least one such network
13 appliance sending a response message and requiring configuration.

1 2. A system according to Claim 1, further comprising:
2 a list of the network appliances maintained by the status module for each
3 at least one such network appliance sending a response message and not requiring
4 configuration.

1 3. A system according to Claim 1, further comprising:
2 a completion module receiving a status message from each at least one
3 such network appliance requiring configuration responsive to receipt of the
4 configuration packet.

1 4. A system according to Claim 3, wherein the status message
2 indicates a successful configuration, further comprising sending a kickstart
3 message to each at least one such network appliance to initiate an autonomous
4 management session.

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1 5. A system according to Claim 3, wherein the status message
2 indicates an unsuccessful configuration, further comprising resending the
3 configuration packet to the at least one such network appliance.

1 6. A system according to Claim 3, wherein the status message
2 indicates an on-going configuration, further comprising waiting for completion of
3 configuration by the at least one such network appliance.

1 7. A system according to Claim 1, further comprising:
2 an applet database storing a plurality of applets customized for execution
3 within each such bounded network domain; and
4 an applet request module receiving the applet from the applet database and
5 installing the applet into the Web browser prior to broadcasting the query
6 message.

1 8. A system according to Claim 7, wherein the applet is received in a
2 secure session.

1 9. A system according to Claim 1, further comprising:
2 a message queue storing instructions for the applet, comprising sending at
3 least one of the query message and the configuration packet.

1 10. A system according to Claim 1, further comprising:
2 a packet generator storing into the configuration packet values comprising
3 at least one of hostname, domain, internet protocol address, netmask, gateway,
4 primary domain name server, and secondary domain name server.

1 11. A system according to Claim 1, wherein the bounded network
2 domain is compliant with the TCP/IP and the configuration packet is compliant
3 with the UDP.

1 12. A method for providing Web browser-based remote network
2 appliance configuration in a distributed computing environment, comprising:

3 broadcasting a query message from an applet executing within a Web
4 browser to one or more network appliances interconnected within a bounded
5 network domain defined by a common network address space;
6 processing a response message containing network settings, including a
7 physical network address, received by the applet from at least one such network
8 appliance responsive to the query message; and
9 generating and sending a configuration packet using the physical network
10 address for each at least one such network appliance sending a response message
11 and requiring configuration.

1 13. A method according to Claim 12, further comprising:
2 updating a list of the network appliances for each at least one such
3 network appliance sending a response message and not requiring configuration.

1 14. A method according to Claim 12, further comprising:
2 receiving a status message from each at least one such network appliance
3 requiring configuration responsive to receipt of the configuration packet.

1 15. A method according to Claim 14, wherein the status message
2 indicates a successful configuration, further comprising:
3 sending a kickstart message to each at least one such network appliance to
4 initiate an autonomous management session.

1 16. A method according to Claim 14, wherein the status message
2 indicates an unsuccessful configuration, further comprising:
3 resending the configuration packet to the at least one such network
4 appliance.

1 17. A method according to Claim 14, wherein the status message
2 indicates an on-going configuration, further comprising:
3 waiting for completion of configuration by the at least one such network
4 appliance.

1 18. A method according to Claim 12, further comprising:

2 receiving the applet from an applet database storing a plurality of applets
3 customized for execution within each such bounded network domain; and
4 installing the applet into the Web browser prior to broadcasting the query
5 message.

1 19. A method according to Claim 18, further comprising:
2 receiving the applet in a secure session.

1 20. A method according to Claim 12, further comprising:
2 sending at least one of the query message and the configuration packet
3 from the applet responsive to instructions maintained in a message queue.

1 21. A method according to Claim 12, further comprising:
2 storing into the configuration packet values comprising at least one of
3 hostname, domain, internet protocol address, netmask, gateway, primary domain
4 name server, and secondary domain name server.

1 22. A method according to Claim 12, wherein the bounded network
2 domain is compliant with the TCP/IP and the configuration packet is compliant
3 with the UDP.

1 23. A computer-readable storage medium holding code for performing
2 the method according to Claims 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, or 22.

1 24. A system for remotely configuring a network appliance deployed
2 within a distributed computing environment, comprising:
3 at least one network appliance sending a response message containing
4 network settings responsive to a query message broadcast over a specified
5 network domain within which the at least one network appliance operates;
6 a configuration client generating a configuration package for the at least
7 one network appliance and containing centrally managed network settings
8 customized for the at least one network appliance; and
9 a bootstrap module on the at least one network appliance installing the
10 configuration package as part of an initialization bootstrap operation.

1 25. A system according to Claim 24, further comprising:
2 a centrally managed library of configurations containing network settings
3 for each such network appliance operating with the specified network domain.

1 26. A system according to Claim 24, further comprising:
2 a library of applets for one or more Web browser-based configuration
3 clients operating within the specified network domain.

1 27. A system according to Claim 26, further comprising:
2 an applet server deploying one such applet from the library to each such
3 configuration client using a secure session.

1 28. A system according to Claim 24, further comprising:
2 a standardized user interface exported by the configuration client and
3 providing configuration controls for a heterogeneous set of the network
4 appliances.

1 29. A system according to Claim 24, further comprising:
2 a package generator including at least one of a timestamp and a unique
3 seed value in each such configuration package.

1 30. A system according to Claim 24, further comprising:
2 a completion module sending a message comprising one of success,
3 failure and unconfigured following configuration package installation at each
4 such network appliance.

1 31. A system according to Claim 24, further comprising:
2 a status daemon initializing a secure management session following
3 successful configuration package installation on at least one such network
4 appliance.

1 32. A system according to Claim 24, wherein at least one such network
2 appliance performs one of electronic mail anti-virus scanning, content filtering,
3 packet routing, and file, Web and print servicing.

1 33. A system according to Claim 24, wherein the distributed
2 computing environment is TCP/IP-compliant.

1 34. A method for remotely configuring a network appliance deployed
2 within a distributed computing environment, comprising:
3 sending a response message containing network settings from at least one
4 network appliance responsive to a query message broadcast over a specified
5 network domain within which the at least one network appliance operates;
6 generating a configuration package for the at least one network appliance
7 and containing centrally managed network settings customized for the at least one
8 network appliance; and
9 installing the configuration package on the at least one network appliance
10 as part of an initialization bootstrap operation.

1 35. A method according to Claim 34, further comprising:
2 centrally managing a library of configurations containing network settings
3 for each such network appliance operating with the specified network domain.

1 36. A method according to Claim 34, further comprising:
2 maintaining a library of applets for one or more Web browser-based
3 configuration clients operating within the specified network domain.

1 37. A method according to Claim 36, further comprising:
2 deploying one such applet from the library to each such configuration
3 client using a secure session.

1 38. A method according to Claim 34, further comprising:
2 exporting a standardized user interface providing configuration controls
3 for a heterogeneous set of the network appliances.

1 39. A method according to Claim 34, further comprising:
2 including at least one of a timestamp and a unique seed value in each such
3 configuration package.

1 40. A method according to Claim 34, further comprising:
2 sending a message comprising one of success, failure and unconfigured
3 following configuration package installation at each such network appliance.

1 41. A method according to Claim 34, further comprising:
2 initializing a secure management session following successful
3 configuration package installation on at least one such network appliance.

1 42. A method according to Claim 34, wherein at least one such
2 network appliance performs one of electronic mail anti-virus scanning, content
3 filtering, packet routing, and file, Web and print servicing.

1 43. A method according to Claim 34, wherein the distributed
2 computing environment is TCP/IP-compliant.

1 44. A computer-readable storage medium holding code for performing
2 the method according to Claims 34, 35, 36, 37, 38, 39, 40, 41, 42, or 43.